

WARM-UP

1. $5y - 22 = 6y$

2. $4k = 9k - 25$

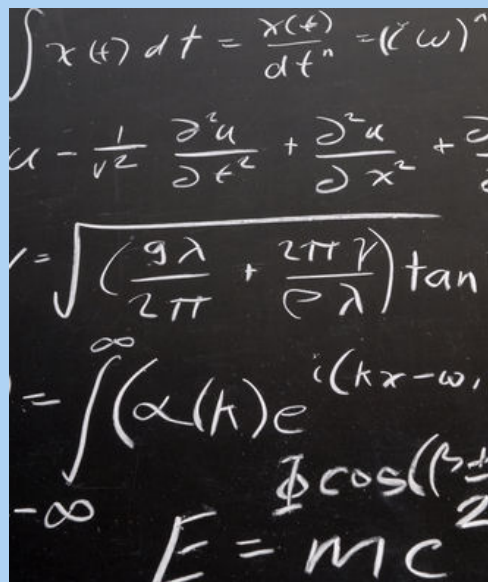
3. $\frac{2}{3}m - 5 = 7$

4. $14 = \frac{1}{4}g - 9$

Solving Equations

1. Determine which terms are like
2. Pick a term (**ANY TERM!**)
3. Determine a strategy for getting like terms together on opposite sides of the =
4. Solve the equation

$$2x + 12 = -18 + 5x$$



Handwritten mathematical formulas on a chalkboard:

- $\int x(t) dt = \frac{x(t)}{dt^n} = (\omega)^n$
- $\alpha - \frac{1}{v^2} \frac{\partial^2 u}{\partial t^2} + \frac{\partial^2 u}{\partial x^2} + \frac{\partial}{\partial t}$
- $v = \sqrt{\left(\frac{g\lambda}{2\pi} + \frac{2\pi\gamma}{\rho\lambda}\right)} \tan \theta$
- $= \int_{-\infty}^{\infty} (\alpha(k) e^{i(kx - \omega t)} + \beta(k) e^{-i(kx - \omega t)}) dk$
- $E = mc^2$

Let's KICK IT UP a notch!

1. $4a + 26 = 50 + 6a$

2. $5x - 12 = 8x + 18$

Try these on your own!

3. $9 + 3k = 2k - 12$

4. $18d - 21 = 15d + 3$



Check



Check



WARM-UP

1. $9p - 3 = -12$

$$\begin{array}{rcl} 9p - 3 & = & -12 \\ +3 & & +3 \\ \hline 9p & = & -9 \\ \hline 9p & = & -9 \\ \hline p & = & -1 \end{array}$$

2. $8p - 2 = -6p$

3. $-\frac{1}{4}k + 5 = 7$

4. $\frac{3}{4}m - 4 = 6$

Solve and SHOW ALL WORK!

$$1. \quad -18 - 6k = 6 + 18k$$

~~+6k~~ +6k

$$\begin{array}{r|l} -18 & = \cancel{6} + 24k \\ +6 & \cancel{+6} \end{array}$$

$$\begin{array}{r|l} -24 & = 24k \\ \hline 24 & 24 \end{array}$$

$$\boxed{-1 = k}$$

$$2. \quad \cancel{5n} + 34 = -2 + 14n$$

~~-5n~~ -5n

$$\begin{array}{r|l} 34 & = \cancel{5n} + 9n \\ +2 & \cancel{+2} \end{array}$$

$$\begin{array}{r|l} 36 & = 9n \\ \hline 9 & 9 \\ 4 & = n \end{array}$$

#1

#2

3. $5p - 14 = 8p + 4$

$$\begin{array}{r|l} +14 & -4 \\ \hline 5p - 18 = 8p & \\ -5p & -5p \\ \hline -18 = 3p & \\ \hline -6 = p & \end{array}$$

4. $a + 5 = -5a + 5$

5. $8c - 2 = -9 + 7c$

$$\begin{array}{r|l} -7c & -7c \\ \hline 1c - 2 & -9 \\ +2 & +2 \\ \hline 1c & -7 \\ \hline 1 & 1 \\ \hline \boxed{c} & \boxed{-7} \end{array}$$

6. $p - 1 = 8p - 8$

$$\begin{array}{r|l} \textcircled{1} -19+6x & -4x+1 \\ \text{+1} & \text{+1} \\ \hline -20+6x & -4x \\ -6x & +6x \\ \hline -20 & -10x \end{array}$$



